

VII. Mitigation Measures and Action Plan

Introduction

The mitigation projects identified in the following “*Mitigation Measures & Action Plan*” were first compiled by the State Hazard Mitigation Officer (SHMO) and then reviewed by the State Hazard Mitigation Planning Committee (SHMPC). For each Goal identified, the SHMPC identified objectives and projects to achieve that goal.

Goals Identified

The SHMO, in coordination with the SHMPC, developed the following list of Mitigation Goals for the State of New Hampshire. These goals are broad and represent what the state would like to achieve in the long-term. They are intended to guide the development and implementation of mitigation measures.

The goals are organized on a functional basis as opposed to being grouped by hazards. The thought being, that many mitigation measures address multi-hazards. However, as identified in Chapter 3-Hazard Analysis, Flooding and Winter Weather related hazards occur most frequently in New Hampshire. Consequently, the mitigation projects identified in this Chapter are based on implementation in the highest risk areas. BEM sets a high priority for projects implemented in the highest impact areas.

Hazard Mitigation Goals of the State of New Hampshire

The overall Goals of the State with respect to Hazard Mitigation provide guidance in the selection of hazard mitigation activities throughout the state. A complete list of the Goals, Objectives and Activities can be found in the “*Mitigation Measures and Action Plan*” on page VIII-3.

1. To improve upon the protection of the general population and the citizens and guests of the State of New Hampshire, from all natural and man-made hazards.
2. To reduce the potential impact of natural and man-made disasters on the State’s Critical Support Services and Critical Facilities.
3. To reduce the potential impact of natural and man-made disasters on the State’s infrastructure.
4. To Improve the State’s Emergency Preparedness, Disaster Response and Recovery Capability.
5. To reduce the potential impact of natural and man-made disasters on private property.
6. To reduce the potential impact of natural and man-made disasters on the State’s economy.

7. To reduce the potential impact of natural and man-made disasters on the State's natural environment.
8. To reduce the State's liability with respect to natural and man-made hazards generally.
9. To reduce the potential impact of natural and man-made disasters on the State's specific historic treasures.
10. To identify, introduce and implement cost effective Hazard Mitigation measures so as to accomplish the State's Goals.

Completed Projects since the 1999 Edition of the Hazard Mitigation Plan

The following projects have been completed since the 1999 edition of the Hazard Mitigation Plan:

1. Conduct a network analysis of the State's flood gauging and warning system(s) in accordance with the recommendations as forwarded by the Water Resources and Flood Interests Planning Group. This project was completed by the combined efforts of the National Weather Service (NWS), United States Geological Survey (USGS), Department of Environmental Service – Water Division (NHDES-WRD), NH Bureau of Emergency Management (BEM) and the Federal Emergency Management Agency (FEMA).
2. Support the integration of existing, upgraded and new precipitation and flow gauges in real time with the National Weather Service. This project was completed by the combined efforts of the NWS, USGS, NHDES-WRD, FEMA and FEMA.
3. Support the enhancement of the gauging network as recommended by the USGS and NHDES-WRD. This project was completed by the combined efforts of the NWS, USGS, NHDES-WRD, FEMA and FEMA.
4. Explore the feasibility and desirability of introducing snowpack and/or high altitude gauging instrumentation into the network and support USGS and NHDES recommendations. This project was completed by the combined efforts of the NWS, USGS, NHDES-WRD, FEMA and FEMA.

Mitigation Measures & Action Plan

Goal I.

To improve upon the protection of the general population and citizens and guest of the State of New Hampshire, from all natural and man-made hazards.

Objective A.

Protect the public from natural & man-made hazards by dissemination of information with respect to the relative risk of individual hazards.

Activity 1.

Facilitate the development of the NHBEM Microwave communications system and integration of Emergency Communications Statewide.

Activity 2.

Establish reliable power generation systems for existing EAS facilities including redundant stand alone power generation systems as indicated.

Activity 3.

Support the Emergency Alert System as necessary. *(Funded by BEM through annual FEMA Grants)*

Activity 4.

NH BEM will continue to support the CEMPS initiative through the Emergency Management Planning Grant Program. *(Funded by BEM through annual FEMA Grants)*

Activity 5.

Support the development of information dissemination opportunities with broadcast and cablecast media during times of potential hazard conditions.

Objective B.

Develop and distribute public awareness materials to New Hampshire communities going to Hazard awareness, Preparedness and Hazard Mitigation.

Activity 1.

Using materials such as the NESEC video, *New England's Next Earthquake* and the publication from the State of Maine Emergency Management Office, *When Rivers Rise* as models; the State will develop public information materials for distribution to appropriate State Agencies, Regional Planning Commissions, communities and interested parties.

Activity 2.

The State will review and develop (as necessary) Public Service Announcements to alert interested parties as to the existence and availability of these products & publish such material to the worldwide web as resources allow. *(Funded by BEM through annual FEMA Grants)*

Activity 3.

The SHMO will continue to work with the NHBEM Field Representatives to make direct outreach to the State's EMDs and other community officials with Hazard Mitigation workshops.

Activity 4.

Encourage the development of local Flood Reduction Programs.

Activity 5.

Support information materials via the circulated print media and utilize local and private utilities' billing circulation to the extent possible. *(Funded by BEM through annual FEMA Grants)*

Activity 6.

Publish such relevant material to the BEM website as may relate to Preparedness, Mitigation, Response and Recovery. *(Funded by BEM through annual FEMA Grants)*

Objective C.

Support the NHOEP-Coastal Program in the mitigation of flood hazards in the State's Coastal Zone

Activity 1.

Support the NHOEP-Coastal Program in its Flood Hazard Mitigation activities and in the preservation of the State's marine and adjacent environments.

Objective D.

Improve the awareness and safety of the State's population going to Hurricane related flooding from excessive rainfall and / or Storm Surge.

Activity 1.

Support the Hurricane Tracking Chart Program and related initiatives to help raise the awareness in the general population of the State's Vulnerability to significant hurricane events. *(Funded by BEM through annual FEMA Grants)*

Objective E.

Develop and support the creation and maintenance of state and local Hazard Mitigation Plans.

Activity 1.

The State will maintain its' Hazard Mitigation Plan addressing Hazard Identification, Vulnerability Assessment, Risk Analysis and assess its capabilities to mitigate the effects of such hazards. *(Funded by BEM through annual FEMA Grants)*

Activity 3.

The State will closely support local communities, with assistance from the Regional Planning Commissions, in the creation of local Mitigation Plans. *(Funded by BEM through annual FEMA Grants)*

Objective F.

Conduct Community Assistance Workshops to advise community officials as to the merits of Hazard Mitigation Planning and the availability of resources.

Activity 1.

NFIP Coordinator shall regularly deliver CAVs at which Hazard Mitigation is discussed along with NFIP issues. *(Funded by BEM through annual FEMA Grants)*

Activity 2.

The SHMO shall address such civic, professional and other groups as may be interested in Hazard Mitigation regarding the State's initiatives and available resources.

Objective G.

Support the State's Drought Mitigation Plans and initiatives.

Activity 1.

Support the New Hampshire Department of Environmental Services - Water Division in the implementation of the State's Drought Management Plan.

Activity 2.

Support the production and distribution of educational materials as necessary to alert the public of the Risk and the appropriate Preparedness and Mitigation actions.

Objective H.

Support NHDRED in the implementation of the State's Wildland Fire Suppression Plans and initiatives.

Activity 1.

Support the New Hampshire Department of Resources and Economic Development in the implementation of the State's Forest Fire Plan and related Plans and authorities toward the development of cost effective Wildland Fire Hazard Mitigation measures.

Objective I.

Enhance the State's capability to monitor and anticipate potential seismic conditions and disseminate appropriate information to the public in a timely manner.

Activity 1.

Support the integration of existing, upgraded and new gauges in real time Weston Observatory.

Activity 2.

Support the enhancement of the gauging network as recommended by the USGS and NHDES-WRD.

Objective J.

Enhance the State's capability to monitor and anticipate potential Severe Wind and related conditions and disseminate appropriate information to the public in a timely manner.

Activity 1.

Identify ideal NOAA Weather transmitter locations and alternates that will provide at least 90% signal reception to the State.

Activity 2.

Support the development of information dissemination with broadcast and cablecast media during times of heightened potential Severe Wind conditions.

Activity 3.

Provide for NOAA Weather Radio (NWR) Special Area Message Encode (SAME) receivers to the public.

Activity 4.

Develop additional information campaigns to educate the public regarding appropriate measures to undertake before, during and after an event as are currently available on the NHBEM and FEMA websites. *(Funded by BEM through annual FEMA Grants)*

Objective K.

In coordination with the NH Association of Code Enforcement Officers, the AIA and the Society of NH Engineers, the NH Department of Safety, and other pertinent agencies, the State's Hazard Mitigation Officer will endeavor to develop Safe Rooms or Safe Areas Statewide.

Activity 1.

Provide materials to educate the public as to the safest measures that may be taken outside of buildings in severe wind events.

Objective L.

Assist communities in performing cost effective Severe Wind Hazard Mitigation measures to protect private property.

Activity 1.

Support the development of local codes to include “Hurricane Clips” in roof construction and promote other cost effective Severe Wind construction and retrofit techniques.

Goal II

To reduce the potential impact of natural and man-made disasters on New Hampshire's Critical Support Services and Critical Facilities.

Objective A.

Identify, assess and catalogue the State's Critical Support Services.

Activity 1.

The SHMO shall work with the NHBEM Field Representatives, local EMDs and other interested regional and local entities to develop lists of public and private facilities considered to be “Essential” to regional and local interests during/after events.

Objective B.

Develop and Support Hazard Mitigation measures designed to reduce the potential impact of disasters on the State's Critical Support Services.

Activity 1.

Upon identification and submission of qualifying applications for Program funding, the SHMO shall present applications and recommendations to the State's Hazard Mitigation Team of all cost effective Hazard Mitigation measures for consideration and prioritization. *(Funded by BEM through annual FEMA Grants)*

Objective C.

Support the development of increased standards for such facilities as may be at risk from natural and man-made hazards.

Activity 1.

Support the retrofit of existing Waste Water Treatment Plants (WWTP) to withstand the 500 year flood event to the extent that such retrofits may be made cost effective

Activity 2.

Support the development of standards to locate new construction of WWTPs above the 500 year Flood level

Goal III.

To reduce the potential impact of natural and man-made disasters on New Hampshire's infrastructure.

Objective A.

Support the NHDES-WRD Dam Bureau's Dam Safety Program.

Activity 1.

Support the Dam Bureau in the execution of dam safety inspections and enforcement programs as needed.

Activity 2.

Support the Dam Bureau in the cost-effective upgrade of State-owned dams for the purpose of optimizing operational controls and the mitigation of the effects of Floods.

Activity 3.

Support workshops in Hazard Mitigation aimed at Dam Safety and maintenance to municipal dam owners.

Activity 4.

Assist private dam owners in gaining access to funding for Hazard Mitigation when structures threaten persons or property and other means/resources are unavailable.

Objective B.

Assist in the development, adoption and implementation of road standards throughout New Hampshire communities.

Activity 1.

Support NHDOT and UNH - TTC - T2 Program in the development of road design construction, storm water and road drainage standards, including culvert and bridge sizing.

Activity 2.

Encourage the development of local and regional river corridor stewardship programs that address the maintenance of storm water runoff structures and systems.

Activity 3.

Consider the development of such programs above by employing the use of volunteers such as Boy/Girl Scouts, watershed groups, environmentally conscious groups, prisoners etc. to assist in river corridor maintenance programs.

Objective C.

Develop strategies to mitigate the effects of River Ice impacts on structures and related flooding.

Activity 1.

Develop river Ice Observer Training and systems to facilitate the field reports of ice conditions that will be accessible to NOAA/NWS and USACoE-CRREL in real time.

Objective D.

Protect the state's Road and Bridge Infrastructure against the effects of natural and man-made hazards.

Activity 1.

Support the Department of Transportation (NH DOT) to conduct vulnerability assessments on the 24 critical bridges throughout the state.

Activity 2.

Support the NH DOT to install video surveillance at all State toll-booths and park-n-rides.

Activity 3.

Support the NH DOT in the implementation of additional Road Weather Information Stations (RWIS) throughout key locations in the State.

Goal IV.

To improve Emergency Preparedness, Response & Recovery in all New Hampshire Communities.

Objective A.

Facilitate the enhancement of State and Local Emergency Operations Planning and Preparedness and provide related training and technical assistance.

Activity 1.

Facilitate the review and development of existing Emergency Operation Plans for potential enhancement with respect to Natural and Manmade Hazards Mitigation initiatives. *(Funded by BEM through annual FEMA Grants)*

Activity 2.

Provide planning and related technical resources to facilitate the enhancement of Disaster Response and Recovery Plans to include Hazard Mitigation initiatives. *(Funded by BEM through annual FEMA Grants)*

Activity 3.

Support the NH Department of Transportation in the development of a Statewide Evacuation Plan.

Objective B.

Provide related Training and Technical Assistance.

Activity 1.

Sponsor Disaster Response Capability training exercises for State and local officials. *(Funded by BEM through annual FEMA Grants)*

Activity 2.

Support Incident Stress Debriefing training workshops for responders and citizens and train debriefers to assist in post-event scenarios.

Activity 3.

Provide for training in communications protocols for local and regional Emergency Responders.

Activity 4.

Support the development of public/private partnerships in the planning for post-event recovery.

Objective C.

Facilitate the enhancement of State and local Recovery capability through exercises.

Activity 1.

Assist State and local officials in developing individual and collective Recovery capability by providing resources and opportunities regarding participation in training exercises.

Activity 2.

Support strategies, plans and infrastructure to accommodate event debris management in an environmentally sound manner.

Objective D.

Develop a Statewide Emergency Backup Power Generation for the Department of Transportation.

Activity 1.

Provide generators at selected State owned fuel locations to provide fuel to emergency vehicles during an extended power outage.

Goal V.

To reduce the potential impact of natural and man-made disasters on private property.

Objective A.

Support the education of the general public and private property owners in regards to cost effective mitigation measures by making information and resources available to facilitate private mitigation initiatives.

Activity 1.

Include Flood Hazard Mitigation information going to cost effective Flood Hazard Mitigation measures for private property in Non-Commercial Service Announcements.

Activity 2.

Publish and distribute information brochures going to cost effective Mitigation measures and the availability of mitigation resources.

Objective B.

Assist communities in performing cost effective Flood Hazard Mitigation measures to protect private property.

Activity 1.

Assist in local planning enterprises toward the identification and prioritization of cost-effective relocation projects.

Goal VI.

To reduce the potential impact of natural and man-made disasters on New Hampshire's economy.

Objective A.

Establish a baseline for future Hazard Mitigation Planning with respect to the impact of natural and man-made hazards on the State's economy.

Activity 1.

Support a protocol for post-disaster data collection as to direct and indirect losses from events by type.

Activity 2.

Support the inclusion of planning for economic Hazard Mitigation and recovery in local Hazard Mitigation Plans.

Goal VII.

To reduce the potential impact of natural and man-made disasters on New Hampshire's natural environment.

Objective A.

Establish a baseline for future Hazard Mitigation Planning with respect to the impact of various natural and man-made hazards on the State's natural environment.

Activity 1.

Develop a strategy for mapping existing sensitive natural resources as may be impacted by the various hazard types in a GIS format useful in Hazard Mitigation, project approval and for use in future DFOs.

Goal VIII.

To reduce the State's liability with respect to natural and man-made hazards.

Objective A.

Establish a baseline for future Hazard Mitigation Planning with respect to the impact of various natural and man-made hazards on the State with respect to any liability as may not have been addressed above

Activity 1.

Identify and catalogue categories of potential loss from natural hazards.

Goal IX.

To reduce the potential impact of natural and man-made disasters on New Hampshire's historic & cultural treasures.

Objective A.

Establish a baseline for future Hazard Mitigation Planning with respect to the impact of natural and man-made hazards on the State's historic and cultural treasures.

Activity 1.

Assist the State's Historic Preservation (SHPO) Officer and the NH Division of Historical Resources (NHDHR) in efforts to inventory, catalogue and assess the State's Archeological and Historical treasures (including buildings, dams, bridges etc.)

Activity 2.

Conduct an analysis of the impact of prior natural and man-made disasters on the State's Historical and Archeological treasures as well as the potential for future impacts to these resources from the hazards identified in this Plan.

Activity 3.

Develop a strategy for Mapping existing sensitive natural resources as may be impacted by the various hazard types in a GIS format useful in Hazard Mitigation project approval and for use in future Disaster Field Offices.

Activity 4.

Assist NH Division of Historical Resources (NHDHR) in the recruitment and training Emergency Field Survey Teams to expedite Historical site reviews in an emergency.

Goal X.

To identify, introduce and implement cost effective Hazard Mitigation measures so as to accomplish the State's Goals.

Objective A.

Communicate the State's Goals and Objectives statewide and assist in State, Regional and Local Hazard Mitigation Planning initiatives statewide.

Activity 1.

Produce copies of this Plan and distribute these to all members of the State Hazard Mitigation Team, State POC's of the relevant Lead and Support Agencies, Regional Planning Commissions and other interested private parties, to facilitate Hazard Mitigation planning and implementation. *(Funded by BEM through annual FEMA Grants)*

Objective B.

Support participating communities in their Mitigation Planning initiatives as well as in project selection and execution.

Activity 1.

Continue to assist in the development of Flood Mitigation Assistance Program (FMAP) Plans and/or projects in communities with FMAP Planning/Project grants. *(Funded by BEM through annual FEMA Grants)*

Activity 2.

Facilitate the selection of one or more communities to receive an FMAP Planning Grant in FY 2005 with FMAP TA 2005 funding.

Activity 3.

Assist in the development of Hazard Mitigation Plans in selected communities. *(Funded by BEM through annual FEMA Grants)*

Activity 4.

Assist communities in FMAP Project designation, initiation and completion as indicated.

Activity 5.

Continue to process existing applications and assist with approved projects with respect to all open Disaster related accounts.

Activity 6.

Continue to work with the State's Hazard Mitigation Team to select projects which are cost beneficial and address the State's Hazard Mitigation Goals and Objectives.

Activity 7.

Revise the HMGP Administrative Plan with Technical Assistance from FEMA.

Activity 8.

Disseminate information with respect to the availability of HMGP funding including the posting of public notices, posting direct mail Notices of Interest to eligible applicants and/or by conducting public information briefings as to the existence and status of HMGP funding and related grant funding requirements.

Objective C.

Continue to support the initiatives developed under the EMPG – Mitigation Assistance Program and develop relevant and cost beneficial planning and project initiatives as indicated.

Activity 1.

The State will continue to support the CEMPS initiative through the EMPG Program. *(Funded by BEM through annual FEMA Grants)*

Activity 2.

The NH BEM will continue to refine the CEMPS curriculum so as to ensure relevancy with the most current and applicable information and mitigation techniques.

Objective D.

Continue to support the initiatives developed under the EMPG – Disaster Preparedness Improvement Grant Program (DPIG) and develop relevant and cost beneficial planning and project initiatives as indicated.

Activity 1.

The SHMO will continue to support Hazard Mitigation planning and projects statewide as are consistent with this Plan.

Objective E.

Continue to support the purpose and intent of the Community Development Block Grant Program insofar as funds are made available for the purpose of Hazard Mitigation Planning and implementation of Hazard Mitigation initiatives.

Activity 1.

The SHMO will continue to support Hazard Mitigation planning and projects statewide as are consistent with this Plan and this funding stream's guidelines

Objective F.

Continue to support the purpose and intent of the FEMA-managed Disaster Relief Initiative funding insofar as funds are made available for the purpose of Hazard Mitigation Planning and implementation of Hazard Mitigation initiatives

Activity 1.

The SHMO will continue to support Hazard Mitigation planning and projects statewide as are consistent with this Plan and this funding stream's guidelines. *(Funded by BEM through annual FEMA Grants)*

Objective G.

Provide training to other State, Regional and local personnel and the private sector which facilitates the awareness and acceptance of Hazard Mitigation and the propagation of responsible Hazard Mitigation initiatives.

Activity 1.

Provide for training in Floodplain Management and the development of local policies and procedures which may facilitate responsible use of designated Floodplain areas. *(Funded by BEM through annual FEMA Grants)*

Activity 2.

Provide for workshops aimed at Dam Safety and maintenance.

Each member of the State Hazard Mitigation Planning Committee is considered an expert in their field and they have prioritized and evaluated each mitigation activity as being cost-effective, environmentally sound and technically feasible. The following table shows the total number of votes of the SHMPC for each project. In addition the SHMO will utilize FEMA Benefit/Cost software for prioritizing both local and state projects.

MITIGATION PROJECTS	VOTES
Facilitate the development of the NHBEM Microwave communications system and integration of Emergency Communications Statewide	6
Support the installation of regionally and locally significant staff gauges and other such monitoring equipment as determined to be necessary by local EMDs, Road Agents etc.	6
Support the New Hampshire Department of Resources and Economic Development in the implementation of the State's Forest Fire Plan and related Plans and authorities toward the development of cost effective Wildland Fire Hazard Mitigation measures	6
NHBEM will work with NHDOT, the NH National Guard, other State agencies, local communities and interested parties to implement a Fleet of mobile standby generators to be stored and maintained at various National Guard Armories around the State	6
Establish reliable power generation systems for existing EAS facilities including redundant stand alone power generation systems as indicated.	5
The State will closely support local communities, with assistance from the Regional Planning Commissions, in the creation of local Mitigation Plans	5
Support the integration of existing, upgraded and new gauges in real time Weston Observatory	5
Identify ideal NOAA Weather transmitter locations and alternates that will provide at least 90% signal reception to the State	5
Support the Dam Bureau in the cost-effective upgrade of State-owned dams for the purpose of optimizing operational controls and the mitigation of the effects of Floods	5
Provide for workshops in Hazard Mitigation aimed at Dam Safety and maintenance to municipal dam owners	5
Organize and train Road Agents, EMDs and "Skywarn" etc. volunteers in affected areas in ice monitoring activities that will enhance the NH-CRREL database	5
Facilitate the review of existing Emergency Operation Plans for potential enhancement with respect to Natural and Manmade Hazards Mitigation initiatives	5
Develop a strategy for Mapping existing sensitive natural resources as may be impacted by the various hazard types in a GIS format useful in Hazard Mitigation, project approval and for use in future DFOs	5
Assist the State's Historic Preservation (SHPO) Officer and the NH Division of Historical Resources (NHDHR) in efforts to inventory, catalogue and assess the State's Archeological and Historical treasures (including buildings, dams, bridges etc.)	5
Continue to work with the State's Hazard Mitigation Team to select projects which are cost beneficial and address the State's Hazard Mitigation Goals and Objectives	5
Provide for training in Floodplain Management and the development of local policies and procedures which may facilitate responsible use of designated Floodplain areas	5
Support the Emergency Alert System as necessary.	4
Using materials such as the NESEC video, <i>New England's Next Earthquake</i> and the publication from the State of Maine Emergency Management Office, <i>When Rivers Rise</i> as models, the State will develop public information materials for distribution to appropriate State Agencies, Regional Planning Commissions, communities and interested parties	4
Support the NHOEP-Coastal Program in its Flood Hazard Mitigation activities and in the preservation of the State's marine and adjacent environments.	4
Support the Hurricane Tracking Chart Program and related initiatives to help raise the awareness	4

in the general population of the State's Vulnerability to significant hurricane events	
Conduct a network analysis of the region's seismic gauging system(s) in accordance recommendations from the Director of the Weston Observatory	4
Conduct a systematic identification and evaluation of the State's Critical Support Services. (This assessment should be compatible with, and enhance FEMA's HAZUS program in GIS format and be compatible with the State's GRANIT GIS system.)	4
The SHMO shall work with the NHBEM Field Representatives, local EMDs and other interested regional and local entities to develop lists of public and private facilities considered to be "Essential" to regional and local interests during/after events.	4
Support the retrofit of existing Waste Water Treatment Plants (WWTP) to withstand the 500 year flood event to the extent that such retrofits may be made cost effective	4
Support the development of standards to locate new construction of WWTPs above the 500 year Flood level	4
Provide planning and related technical resources to facilitate the enhancement of Disaster Response and Recovery Plans to include Hazard Mitigation initiatives	4
Provide for training in communications protocols for local and regional Emergency Responders	4
Develop a priority protocol for potential distribution of Fleet generators in an event	4
The State will continue to support the DPIG with matching funding in support of the Office of Protection Planner/Hazard Mitigation Officer	4
Perpetuation and enhancement of CEMPS. The State will continue to support the NHP and the CEMPS initiative through the Mitigation Assistance Program (Ongoing Program).	3
The State will review and develop (as necessary) Public Service Announcements to alert interested parties as to the existence and availability of these products and the concepts generally & publish such material to the world-wide web as indicated and resources allow	3
The SHMO will continue to work with the NHBEM Field Representatives and other State agents to make direct outreach to the State's EMDs and other community officials with Hazard Mitigation workshops	3
Encourage the development of local Flood Reduction Programs	3
Publish such relevant material to the world-wide web as may relate to Preparedness, Mitigation Response and Recovery	3
Support the NHOEP-Coastal Program in research and data collection going to the effects of sea level rise and potential related impacts on NH coastal communities	3
The State will develop and maintain an All Hazards Mitigation Plan addressing Hazard Identification, Vulnerability Assessment, Risk Analysis and assess its capabilities to mitigate the effects of such all hazards and prioritize such mitigation measures	3
The SHMO shall address such civic, professional and other groups as may be interested in Hazard Mitigation regarding the State's initiatives and available resources.	3
Support the New Hampshire Department of Environmental Services - Water Division in the implementation of the State's Drought Management Plan	3
Support the enhancement of the gauging network as recommended by the USGS and NHDES-WRD	3
Develop additional information campaigns to educate the public regarding appropriate measures to undertake before, during and after an event as are currently available, on the NHBEM webpage and as available on the FEMA website to which the NHBEM page is linked	3
Support the development of local codes to include "Hurricane Clips" in roof construction and promote other cost effective Severe Wind construction and retrofit techniques.	3
Support the Dam Bureau in the execution of dam safety inspections and enforcement programs as needed	3
Sponsor Disaster Response Capability training exercises for State and local officials	3
Support Incident Stress Debriefing training workshops for responders and citizens and train debriefers to assist in post-event scenarios	3

Support the development of public/private partnerships in the planning for post-event recovery	3
Assist State and local officials in developing individual and collective Recovery capability by providing resources and opportunities regarding participation in training exercises	3
Develop a protocol for post-disaster data collection as to direct and indirect losses from events by type	3
Identify and catalogue categories of potential loss from natural hazards	3
Continue to assist in the development of Flood Mitigation Assistance Program (FMAP) Plans and/or projects in communities with FMAP Planning/Project grants	3
Continue to process existing applications and assist with approved projects with respect to all open Disaster related accounts (i.e., DRs 1077, 1144, 1199, 1231 and 1305)	3
Revise the HMGP Administrative Plan with Technical Assistance from FEMA	3
The SHMO will continue to support Hazard Mitigation planning and projects statewide as are consistent with this Plan and this funding stream's guidelines	3
Support the development of information dissemination opportunities with broadcast and cablecast media during times of potential hazard conditions.	2
Distribute pamphlet and associated information materials via the circulated print media and utilize local and private utilities' billing circulation to the extent practical/possible	2
Support the production and distribution of educational materials as necessary to alert the public of the Risk and the appropriate Preparedness and Mitigation actions	2
From this data (identified above), develop cost-effective Hazard Mitigation strategies/projects to enhance the ability of each of these services to withstand the effects of each of the hazards in this Plan.	2
Upon identification and submission of qualifying applications for Program funding, the SHMO shall present applications and recommendations to the State's Hazard Mitigation Team of all cost effective Hazard Mitigation measures for consideration and prioritization.	2
Assist private dam owners in gaining access to funding for Hazard Mitigation when structures threaten persons or property and other means/resources are unavailable	2
Support NHDOT and UNH - TTC - T2 Program in the development of road design construction, storm water and road drainage standards, including culvert and bridge sizing.	2
Assist in local planning enterprises toward the identification and prioritization of cost-effective relocation projects	2
Support the inclusion of planning for economic Hazard Mitigation and recovery in local Hazard Mitigation Plans	2
Conduct an analysis of the impact of prior natural and man-made disasters on the State's Historical and Archeological treasures as well as the potential for future impacts to these resources from the hazards identified in this Plan	2
Assist NH Division of Historical Resources (NHDHR) in the recruitment and training Emergency Field Survey Teams to expedite Historical site reviews in an emergency.	2
Produce copies of this Plan and distribute these to all members of the State Hazard Mitigation Team, State POC's of the relevant Lead and Support Agencies, Regional Planning Commissions and other interested private parties, to facilitate Hazard Mitigation planning and implementation.	2
Assist in the development of FMAP Plans in the selected community or communities	2
Assist communities in FMAP Project designation, initiation and completion as indicated.	2
Disseminate information with respect to the availability of HMGP funding including the posting of public notices, posting direct mail Notices of Interest to eligible applicants and/or by conducting public information briefings as to the existence and status of HMGP funding and related grant funding requirements	2
The NHP Officer will continue to refine the CEMPS curriculum so as to ensure relevancy with the most current and applicable information and mitigation techniques	2
The SHMO will continue to support Hazard Mitigation planning and projects statewide as are consistent with this Plan	2
NFIP Coordinator shall regularly deliver CAVs at which Hazard Mitigation is discussed along with NFIP	1

issues	
Support the development of information dissemination opportunities with broadcast and cablecast media during times of heightened potential Severe Wind conditions	1
Provide for NOAA Weather Radio (NWR) Special Area Message Encode (SAME) receivers to the public	1
Identify and/or develop guidelines and plans as necessary to assist occupants in creating safe areas in residences throughout the state for residential and commercial properties.	1
Develop materials to educate the public as to the safest measures that may be taken outside of buildings in severe wind events.	1
Encourage the development of local and regional river corridor stewardship programs that address the maintenance of storm water runoff structures and systems	1
Develop river Ice Observer Training and systems to facilitate the field reports of ice conditions that will be accessible to NOAA/NWS and USACoE-CRREL in real time	1
Include Flood Hazard Mitigation information going to cost effective Flood Hazard Mitigation measures for private property in Non-Commercial Service Announcements	1
Publish and distribute information brochures going to cost effective Mitigation measures and the availability of mitigation resources	1
Conduct an analysis of the impact of prior natural and man-made disasters on the State's economy as well as the potential for future impacts to the economy from the disasters identified in this Plan	1
Facilitate the selection of one or more communities to receive an FMAP Planning Grant in FY 2001 with FMAP TA 2001 funding	1
The SHMO will continue to support Hazard Mitigation planning and projects statewide as are consistent with this Plan and this funding stream's guidelines	1
Consider the development of such programs above by employing the use of volunteers such as Boy/Girl Scouts, watershed groups, environmentally conscious groups, prisoners etc. to assist in river corridor maintenance programs	0
Develop strategies, plans and infrastructure to accommodate event debris management in an environmentally sound manner	0
Develop a strategy for the mitigation of such liabilities as may not have been addressed directly above.	0

The Mitigation Action Plan on the following page identifies the highest ranking activities with their Responsibility, Estimated Costs, Funding Sources and a Timeframe. In addition, these high-ranking projects also were evaluated using STAPLEE. **STAPLEE** is an acronym for a general set of criteria common to public administration officials and planners. It stands for the Social, Technical, Administrative, Political, Legal, and Economic/ Environmental criteria for making planning decisions. The NHBEM and the State Hazard Mitigation Officer completed the STAPLEE Review which can be found in Appendix A.

State of New Hampshire <i>Mitigation Action Plan</i>					
Project	Responsibility/Oversight	Estimated Cost	Funding/Support	Timeframe	Flood/Winter Weather Action
Facilitate the development of the NHBEM Microwave communications system and integration of Emergency Communications Statewide	BEM	Cost is being investigated	To be Determined	5 years	No
Support the installation of regionally and locally significant staff gauges and other such monitoring equipment as determined to be necessary by local EMDs, Road Agents etc.	USGS/BEM	\$75 per site	Determined as needed	2-5 years	Yes
Support the New Hampshire Department of Resources and Economic Development in the implementation of the State's Forest Fire Plan and related Plans and authorities toward the development of cost effective Wildland Fire Hazard Mitigation measures	DRED/BEM	Planning Phase being developed	Firewise and various federal programs	2-5 years	No
Establish reliable power generation systems for existing EAS facilities including redundant stand alone power generation systems as indicated.	BEM	Being Developed	To be determined	2 years	Yes
The State will closely support local communities, with assistance from the Regional Planning Commissions, in the creation of local Mitigation Plans	BEM	\$7,500/plan	EMPG	Annually	No

Mitigation Action Plan Continued

Project	Responsibility/Oversight	Estimated Cost	Funding/Support	Timeframe	Flood/Winter Weather Action
Support the integration of existing, upgraded and new gauges in real time Weston Observatory	Weston/BEM	\$25,000/Site \$15,000 annual fee	Private Source	Ongoing	No
Identify ideal NOAA Weather transmitter locations and alternates that will provide at least 90% signal reception to the State	NH DOT	\$70,000/site +\$35/mo. Fees	Funding is being determined	3-5 years	Yes
Support the Dam Bureau in the cost-effective upgrade of State-owned dams for the purpose of optimizing operational controls and the mitigation of the effects of Floods	DES	Cost will vary per project	Dam maintenance fund	Ongoing	Yes
Provide for workshops in Hazard Mitigation aimed at Dam Safety and maintenance to municipal dam owners	DES	\$2,000 Workshop	Dam Registration Fees	Ongoing	Yes
Organize and train Road Agents, EMDs and "Skywarn" etc. volunteers in affected areas in ice monitoring activities that will enhance the NH-CRREL database	CRREL/BEM	\$1,500/Workshop	State Hazard Mitigation Funds	Ongoing	Yes
Facilitate the review of existing Emergency Operation Plans for potential enhancement with respect to Natural and Manmade Hazards Mitigation initiatives	BEM	\$5,000/plan	EMPG	Ongoing	No
Develop a strategy for Mapping existing sensitive natural resources as may be impacted by the various hazard types in a GIS format useful in Hazard Mitigation, project approval and for use in future DFOs	BEM/grnit/911	Admn. Costs	Personnel Support/ Administrative Budget	Unknown	No

Mitigation Action Plan Continued

Project	Responsibility/Oversight	Estimated Cost	Funding/Support	Timeframe	Flood/Winter Weather Action
Assist the State's Historic Preservation (SHPO) Officer and the NH Division of Historical Resources (NHDHR) in efforts to inventory, catalogue and assess the State's Archeological and Historical treasures (including buildings, dams, bridges etc.)	NHDHR/BEM	Varies per project	EMPG/NHDR	3-5 years	No
Continue to work with the State's Hazard Mitigation Team to select projects which are cost beneficial and address the State's Hazard Mitigation Goals and Objectives	BEM/State Hazard Mitigation Committee	Admn.	EMPG	Annually	No
Provide for training in Floodplain Management and the development of local policies and procedures which may facilitate responsible use of designated Floodplain areas	OEP/RPCs	\$3,000/yr	CAP/NFIP	Annually	Yes

BEM Staff Projects

The following is a list of mitigation activities that should be incorporated in the next update of the Plan, as time and funds allow

Complete building type to the <i>Inventory of State-Owned Critical Facilities</i> table in Chapter IV.	BEM – SHMO	Admn.	BEM Staff	1-3 years	No
Collect more hazard specific data, on a county wide basis for Landslide, Downburst, Lightning and Winter Weather.	BEM – SHMO	Admn.	BEM Staff	1-5 years	Yes
Incorporate identification, risk assessment and mitigating of Human-Caused Hazards in future updates of this Plan.	BEM – SHMO	Admn.	BEM Staff	1-5 years	No